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# United States Patent [19]

Barrus

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[54] **METHOD AND APPARATUS FOR DETECTING THE LOCATION OF A LIGHT SOURCE**

[75] Inventor: **John Barrus**, Menlo Park, Calif.

[73] Assignee: **Mistubishi Electric Information Technology Center America, Inc.**, Cambridge, Mass.

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[52] **U.S. Cl.** ..... **356/375**; 345/157; 345/179

[58] **Field of Search** ..... 346/157, 179; 356/375

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*Primary Examiner*—Frank G. Font
*Assistant Examiner*—Zandra V. Smith
*Attorney, Agent, or Firm*—Dirk Brinkman

[57] **ABSTRACT**

In an audio/visual computer-generated presentation system in which material is presented to an audience through projection of the material to a screen, the position of a remotely-generated spot from a laser illuminator is detected by a so-called sensor which is positioned to detect light from the spot which is diffusely reflected off the screen along the portion of the optical path between the computer-driven light modulator and the screen, with the sensing of the position of the spot at the time of the generation of a selection signal being used to change the on-screen material. The on-axis sensor for detecting the light spot eliminates speed and accuracy problems associated with off-axis CCD camera detection, while at the same time providing a presenter with a robust method of selecting computer-generated material to be presented.

**5 Claims, 5 Drawing Sheets**